Atmospheric Radiation Measurement
CLIMATE RESEARCH FACILITY
U.S. Department of Energy

Instrument Readiness Review Request (IRRR)

The Instrument Readiness Review Request has been designed to gather the information needed to prepare for the deployment of an instrument at an ARM site to insure that all instrument requirements can be properly accommodated by Site Operations and the Data System staff. Please complete one Instrument Readiness Review Request per instrument, answering all questions as completely as possible. If you feel a question is not applicable to your deployment, please write "NA" – do not leave any questions blank. Site Operations and Data System personnel will review this information and will contact you to discuss the requested support. When you are ready to upload the form, please go to
http://engineering.arm.gov/engr/task/instrument_support/

Cautionary Note: Any change or substitution to the information described in this Instrument Readiness Review Request will require further evaluation by Site Operations before the instrument may be energized and operated, possibly delaying the start of your field campaign.

1. General Information	
Instrument Name:	
Instrument Mentor Name:	
Instrument Developer Name:	
Affiliation:	
Mentor Address:	
Mentor Phone Number:	
Fax Number:	
Email address:	
Related ECO/EWO number:	
Related BCR Number:	
Related Site(s) - SGP, NSA, TWP, AMF, XDC, DMF, ARCHIVE, DQ Office, etc.	
Brief description of instrument and measurements:	
Is deployment stand alone or with other instruments?	
Type of deployment: • Field Campaign (Provide campaign name) • ARM instrument development/evaluation • New, operational ARM instrument • Non-IOP guest instrument • IOP Instrument	
If fixed deployment, which ARM site where instrument will be deployed:	
If mobile deployment, is this permanent part of an AMF?	
Brief description of your operations plan:	
Will the measurements from the instrument become a production ARM datastream?	
Does the instrument conform to the Vendor specifications? Vendor Specifications	
Will the data be collected by ARM Data system?	
Will the data be ingested by the ARM Data system?	
Will the data be passed to ARCHIVE through the ARM Data system?	

Are any instruments currently installed on-site deemed critical to your deployment or experiment?	
CAUTIONARY NOTE FOR NORTH SLOPE OF ALASKA DEPLOYMENTS: • Lodging at the ARCF Duplex is on a first-come, first-served basis. Do not automatically assume that your stay can be accommodated. • Vehicle use at the NSA is limited, and ARM Site Operations activities take priority. Do not automatically assume that ARM vehicles will be available for your use.	

2. Deployment/Removal Support Needs	
Planned date(s) of deployment. Please indicate your planned arrival and departure dates (Reminder: A Site Access Request must be submitted and approved for each person requiring access to an ARM site to support this instrument deployment http://www.db.arm.gov/SARS/)	
How will your equipment be shipped/transported to the site? (e.g. Yellow Freight, FedEx, private car/truck, etc)	
Size and weight of equipment?	
Will your equipment need to be stored prior to set up or subsequent to tear down?	
Will your shipping containers need to be stored during the deployment? If yes, please indicate number and size	
Will you need our assistance to unload, load, or transport your equipment on-site?	
Will you need any special services for unloading/loading your equipment? If so, arrangements for crane, forklift or other special services must be made at least 4 weeks in advance.	
What is the desired location for your instrument? Maps are available at: • SGP: http://www.arm.gov/sites/sgp • NSA: http://www.arm.gov/sites/nsa • TWP: http://www.arm.gov/sites/twp • AMF: http://www.arm.gov/sites/amf	
What is the field of view (FOV) of your equipment? • hemispheric FOV • narrow FOV – zenith pointing • narrow FOV – solar tracking • narrow FOV – scanning (describe) • other (describe)	
Does your equipment require a specific alignment?	
What fetch or surrounding terrain/land use do you require?	
What other instruments does your equipment need to be co-located with?	
Could your equipment generate or be susceptible to interference (radio frequency, electromagnetic, acoustic, aerodynamic, etc) with ARM or other guest instruments?	
Are there any other location considerations?	

Do you intend to mount your equipment on an existing concrete pad, platform, tower, stand, solar tracker, etc?	
Do you intend to provide your own platform, tower, stand, solar tracker, etc?	
Will you need assistance from Site personnel to set up, mount, or install your equipment?	
Will you need shelter for your equipment?	
Will you be providing a shelter for your equipment?	
Will you need any utility support? (water, etc.)	
Are there any other deployment or removal support needs?	

3. Data Connections	
Do you require connection(s) to ARM site networks?	
How many connections do you require?	
What is the planned method of data delivery to the data system? (ftp, serial, etc.)	
What network services do you require? (ssh/scp (secure shell/secure copy), ftp (file transfer), telnet (remote terminal), http (web server), smtp (email), etc.) For all non-IOP instruments, we will be installing ARM approved FTP and Time client servers and pre-configured operating systems when applicable. In some instances, instrument PCs can be virtualized, eliminating the need for a physical computer. For more information, please contact Cory Stuart at cstuart@anl.gov.	
Do you want the ARM Core (pre-configured) Software installed on your windows PC?	
What volume of data do you plan to transfer? (Note – If the instrument is an IOP instrument, large data transfer volumes will need to be scheduled so as not to interfere with ARM data transfers)	
Will you be connecting computers to the ARM network?	
What type of computer(s) and what operating system and version (e.g. Windows XP SP3, Redhat Linux 5.4) do they use?	
What virus protection software is installed in your computer(s)?	
Before any of your computers will be connected to the network, you must submit each of them to our technicians for a virus scan. Do you consent to this? Note: This is to ensure that the systems are secure and do not pose risks to the ARM security posture.	

4. Data/Meta-data information	
What will the data format be?	
What will the data size be?	
What will the data name be?	
What is the expected daily volume of data?	

Will data from the instrument be available to the data system hourly?*	
If Not, describe the availability?	
What is the location of the data on the instrument?	
Are the data files documented in the related ECO?	
What is file naming convention?	
What is data/meta-data file structure?	
Have sample data files been provided to the collection and ingest developers?	
Please provide a brief description of each instrument system to be associated with an IP address:	
Please provide any information you feel is necessary to support your deployment.	
Are all related ECOs and EWOs up-to-date?	

5. Electrical Requirements	
Will you need to connect to site AC power? If yes, please answer the following for EACH LOAD you wish to connect to the site AC power. In the event your equipment is contained in a single rack, enclosure, or trailer, that is fed by a single power cord, it is only necessary to provide the details of that main power feed.	
What is the voltage of each load?	
What is the frequency of each load?	
What is the amperage of each load?	
What is the phase of each load?	
Are your AC power requirements other than 120 Volt AC, 60Hz, single phase (NEMA plug type 5-15P or 5-20P? If yes, please provide the NEMA plug type(s).	
Has your AC-powered equipment been inspected and certified as safe by a Nationally Recognized Testing Laboratory (NRTL), such as Underwriters Laboratories?	
If the equipment has not been listed by a Nationally Recognized Testing Laboratory (NRTL) has it been examined and approved by a designated electrical equipment inspector?	
Please list those pieces of your AC-powered equipment that have not been inspected and certified as safe.	
NOTE: All AC-powered equipment that has not been inspected and certified as safe will be inspected by a designated Site Electrical Safety Officer prior to being energized.	

6. Operations and Maintenance Support	
Will you require Site staff support during this deployment? (e.g. for cleaning, alignment, calibration, data collection/transfer, rebooting computers, etc) If so, please describe the following: • Tasks, frequency, and time to complete • Documentation / procedures available • Training, description and dates	
Will you need any Site tools or parts? Hand tools (screwdrivers, hammers, etc) Specialty tools (soldering iron, etc) Electrical / electronic parts Test / calibration equipment (oscilloscope, etc) Simple hardware (nuts, bolts, screws, etc) Simple building materials (lumber, plywood, etc)	
Will you need any furnished expendable supplies? (If yes, which and what quantity) • Specialty gasses – He, N_2, dry air, etc • Cryogens – liquid N_2, dry ice, etc • Deionized or distilled water • Cleaning materials	

7. Safety	
Does any of your equipment incorporate a laser? (If yes, please provide the class, wavelength, output power, restricted area requirements, eye safe range)	
Does this equipment emit microwave energy of any kind? (If yes, please provide the frequency, output power level, restricted area requirements)	
Does this equipment emit acoustic energy of any kind? (If yes, please provide the output dB, and restricted area requirements.	
Does the equipment incorporate nuclear material or emit ionizing radiation? (If yes, indicate the isotope, amount, type of emission (alpha, beta, gamma, X-ray, etc), activity level, containment, and handling procedures.)	
Will any work be performed at an elevated area (workers feet more than 6 feet above ground level) for the installation and/or operation of this equipment?	
Will you be bringing/using any compressed gases?	
Will you be bringing/using any cryogens (e.g. liquid nitrogen or dry ice)?	
Will you be bringing/using chemicals (reagents, solvents)? If yes, please indicate which chemicals, their quantities, their purpose, and describe how you plan to store, handle and dispose of them)	
What personnel protective equipment (PPE) are you bringing to facilitate the safe handling of the chemicals?	
Will you be bringing/using any other hazardous materials?	
Will there be any waste generated by the operation of this equipment?	

Will you be bringing any safety equipment for your operation? (i.e., Fire extinguishers, safety glasses/goggles/face masks, etc)	
Will you be bringing any safety signs for your operation? (i.e., Restricted area, microwave radiation, etc)	
Are there any other safety-related issues associated with your activities while on-site?	

8. Additional Information	
Please provide any additional information you feel is necessary to support your deployment.	